

HP Docket No. 10004411

CLAIMS

What is claimed is:

1. A fusing system for fusing toner to a recording medium, comprising:

2 a fuser roller;

3 a pressure roller in contact with the fuser roller; and

4 an external heating roller in contact with one of the fuser and the pressure rollers.

1 2. The system of claim 1, wherein the fuser roller comprises a hollow tube

2 and an internal heating element.

1 3. The system of claim 1, wherein the pressure roller comprises a hollow tube

2 and an internal heating element.

1 4. The system of claim 1, wherein the fuser roller comprises an outer layer

2 composed of an elastomeric material.

1 5. The system of claim 1, wherein the pressure roller comprises an outer

2 layer composed of an elastomeric material.

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1           6.     The system of claim 1, wherein the external heating roller contacts the  
2     fuser roller.

1           7.     The system of claim 1, wherein the external heating roller comprises a  
2     hollow tube and an internal heating element.

*Sub 12*  
1           8.     The system of claim 7, wherein the internal heating element comprises a  
2     tungsten filament halogen lamp.

*Sub 12*  
1           9.     The system of claim 1, further comprising a second external heating roller.

*Sub 13*  
1           10.    The system of claim 9, wherein the second external heating roller is in  
2     contact with the pressure roller.

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1 11. A fusing system for fusing toner to a recording medium, comprising:  
2 a hollow fuser roller having an internal heating element and an outer layer  
3 composed of an elastomeric material;  
4 a pressure roller in contact with the fuser roller and having an outer layer  
5 composed of an elastomeric material; and  
6 a hollow external heating roller having an internal heating element, the external  
7 heating roller being in contact with the fuser roller.

1 12. The system of claim 11, wherein the pressure roller comprises a hollow  
2 tube and an internal heating element.

1 13. The system of claim 11, wherein the internal heating elements comprise  
2 tungsten filament halogen lamps.

1 14. The system of claim 11, further comprising a second external heating  
2 roller, the second external heating roller being in contact with the pressure roller.

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1 15. A fusing system for fusing toner to a recording medium, comprising:  
2 a fuser roller having an outer surface;  
3 a pressure roller in contact with the fuser roller; and  
4 external heating means positioned outside of the fuser roller that is adapted to heat  
5 the outer surface of the fuser roller.

1 16. The system of claim 15, wherein the external heating means comprise an  
2 external heating roller in contact with the fuser roller.

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1           17.    A device in which toner is fused to a recording medium, comprising:  
2                means for attracting toner to a surface of the recording medium; and  
3                a fusing system including a hollow fuser roller having an internal heating element  
4                and an outer layer composed of an elastomeric material, a pressure roller in contact with  
5                the fuser roller and having an outer layer composed of an elastomeric material, and a  
6                hollow external heating roller having an internal heating element, the external heating  
7                roller being in contact with the fuser roller.

1           18.    The device of claim 17, wherein the pressure roller comprises a hollow  
2                tube and an internal heating element.

1           19.    The device of claim 17, wherein the internal heating elements comprise  
2                tungsten filament halogen lamps.

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1           20.    The system of claim 17, further comprising a second external heating  
2                roller, the second external heating roller being in contact with the pressure roller.

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- 1           21.    A method for heating a fuser roller of a fusing system, comprising the  
2    steps of:  
3           providing an external heating roller;  
4           contacting an outer surface of the fuser roller with the external heating roller;  
5           heating the external heating roller; and  
6           rotating the external heating roller and the fuser roller such that heat is transferred  
7    from the external heating roller to the fuser roller.